Detailed Claim Listing

The following is a detailed listing of all claims that are, or were, pending in the present application. Claims 1-63 were previously cancelled, and new claims 72-83 have been added as set forth in this detailed listing. Thus, claims 64-83 are currently pending.

1-63. (***Cancelled***)

64. (***Previously Presented***) An actuator for a heart assist device, the actuator comprising:

(a) a flexible balloon comprising:

(i) a tubular neck portion;

(ii) a first body portion coupled to the neck portion;

(iii) a second body portion; and

(iv) a flexure portion coupled to the first body portion and the second body portion,

wherein the balloon comprises an inflated configuration and a deflated configuration in which a portion of the second body portion is in contact with the first body portion; and

(b) a bushing disposed within and extending from the tubular neck portion of the balloon, the bushing comprising a bore, wherein the bushing is configured to be coupleable to an external fluid line.

65. (***Previously Presented***) The actuator of claim 64, further comprising a restraint component comprising a hole, wherein the restraint component is a shroud or a wrap.

66. (***Previously Presented***) The actuator of claim 65, wherein the restraint component is a wrap configured to be disposed around the flexible balloon and an exterior of a patient's arterial vessel.

67. (***Previously Presented***) The actuator of claim 64, wherein the balloon is formed from silicone, polyurethane, or a polyurethane-polysiloxane block copolymer.

68. (***Previously Presented***) An actuator for a heart assist device, the actuator comprising:

(a) a restraint component comprising a hole; and

(b) a flexible balloon comprising:

(i) a tubular neck portion disposed through the hole in the restraint component;

(ii) a first body portion coupled to the neck portion, wherein the first body portion is unattachedly disposed adjacent to the restraint component;

(iii) a second body portion; and

(iv) a flexure portion coupled to the first body portion and the second body portion,

wherein the balloon comprises a deflated configuration and an inflated configuration in which at least a portion of the first body portion is displaced inwardly away from the restraint component.

69. (***Previously Presented***) The actuator of claim 68, wherein the restraint component comprises a shroud or a wrap.

70. (***Previously Presented***) The actuator of claim 68, wherein the restraint component comprises a wrap configured to be disposed around the flexible balloon and an exterior of a patient's arterial vessel.

71. (***Previously Presented***) The actuator of claim 68, wherein the balloon is formed from silicone, polyurethane, or a polyurethane-polysiloxane block copolymer.

72. (***New***) The actuator of claim 64, wherein the bore comprises at least one internal projection disposed within the bore.

73. (***New***) The actuator of claim 72, wherein the at least one internal projection comprises at least one flute, at least one rib, or at least one secondary lumen.

74. (***New***) The actuator of claim 64, wherein the flexure portion has a radius of curvature of at least 0.1 mm in the inflated configuration.

75. (***New***) The actuator of claim 64, wherein the heart assist device is an extra-aortic counterpulsation heart assist device.

76. (*New*) The actuator of claim 65, wherein the restraint component is disposed against an exterior portion of the tubular neck portion of the balloon, thereby resulting in a snug sealing fit between the restraint component and the tubular neck portion.

77. (*New*) The actuator of claim 68, further comprising a bushing disposed within and extending from the tubular neck portion of the balloon, the bushing comprising a bore, wherein the bushing is configured to be coupleable to a fluid line.

78. (*New*) The actuator of claim 77, wherein the bore comprises at least one internal projection disposed within the bore.

79. (*New*) The actuator of claim 78, wherein the at least one internal projection comprises at least one flute, at least one rib, or at least one secondary lumen.

80. (*New*) The actuator of claim 68, wherein the flexure portion has a radius of curvature of at least 0.1 mm in the inflated configuration.

81. (*New*) The actuator of claim 68, wherein the flexible balloon has a thickness ranging from about 150 microns to about 300 microns.

82. (*New*) The actuator of claim 68, wherein the heart assist device is an extra-aortic counterpulsation heart assist device.

83. (*New*) The actuator of claim 68, wherein the restraint component is disposed against an exterior portion of the tubular neck portion of the balloon, thereby resulting in a snug sealing fit between the restraint component and the tubular neck portion.